Smart Skies			
2009 Science Revised June 2010			
Learning Standards			
Washington Science Revised June 2010			
Grades 4-5			
Activity/Lesson	**State**	**Standards**	
Fly by Math	WA	SCI.4-5.2.4-5 INQD.1	Gather, record, and organize data using appropriate units, tables, graphs, or maps.
Fly by Math	WA	SCI.4-5.4.4-5 PS1A.1	Use a spring scale to measure the weights of several objects accurately. Explain that the weight of an object is a measure of the force of gravity on the object. Record the measurements in a table.
Fly by Math	WA	SCI.4-5.4.4-5 PS1B.1	Measure the distance that an object travels in a given interval of time and compare it with the distance that another object moved in the same interval of time to determine which is fastest.
Fly by Math	WA	SCI.4-5.4.4-5 PS2B.2	Describe how the wind can move things (e.g., wind can move the branches of trees when it blows and moves sailboats through the water).
Fly by Math	WA	SCI.4-5.4.4-5 PS3A.1	Identify different forms of energy (e.g., heat, light, sound, motion, electricity) in a system.
Line Up with Math	WA	SCI.4-5.4.4-5 PS1B.1	Measure the distance that an object travels in a given interval of time and compare it with the distance that another object moved in the same interval of time to determine which is fastest.
Line Up with Math	WA	SCI.4-5.4.4-5 PS1B.2	Measure the time it takes two objects to travel the same distance and determine which is fastest.
Line Up with Math	WA	SCI.4-5.4.4-5 PS2B.2	Describe how the wind can move things (e.g., wind can move the branches of trees when it blows and moves sailboats through the water).
Line Up with Math	WA	SCI.4-5.4.4-5 PS3A.1	Identify different forms of energy (e.g., heat, light, sound, motion, electricity) in a system.

Smart Skies			
2009 Science Revised June 2010			
Learning Standards			
Washington Science Revised June 2010			
Grades 6-8			
Activity/Lesson	**State**	**Standards**	
Fly by Math	WA	SCI.6-8.2.6-8 INQC.2	Recognize and interpret patterns – as well as variations from previously learned or observed patterns – in data, diagrams, symbols, and words.
Fly by Math	WA	SCI.6-8.2.6-8 INQC.3	Use statistical procedures (e.g., median, mean, or mode) to analyze data and make inferences about relationships.

Fly by Math	WA	SCI.6-8.4.6-8 PS1A.1	Measure the distance an object travels in a given interval of time and calculate the object's average speed, using S = d/t. (e.g., a battery-powered toy car travels 20 meters in 5 seconds, so its average speed is 4 meters per second).
Fly by Math	WA	SCI.6-8.4.6-8 PS1A.2	Illustrate the motion of an object using a graph, or infer the motion of an object from a graph of the object's position vs. time or speed vs. time.
Fly by Math	WA	SCI.6-8.4.6-8 PS1B.1	Demonstrate and explain the frictional force acting on an object with the use of a physical model.
Fly by Math	WA	SCI.6-8.4.6-8 PS1C.1	Determine whether forces on an object are balanced or unbalanced and justify with observational evidence.
Fly by Math	WA	SCI.6-8.4.6-8 PS1C.2	Given a description of forces on an object, predict the object's motion.
Fly by Math	WA	SCI.6-8.4.6-8 PS1D.1	Given two different masses that receive the same unbalanced force, predict which will move more quickly.
Fly by Math	WA	SCI.6-8.4.6-8 PS3D.2	Draw and label a diagram showing that for an object to be seen, light must come directly from the object or from an external source reflected from the object, and enter the eye.
Line Up with Math	WA	SCI.6-8.4.6-8 PS1A.1	Measure the distance an object travels in a given interval of time and calculate the object's average speed, using S = d/t. (e.g., a battery-powered toy car travels 20 meters in 5 seconds, so its average speed is 4 meters per second).
Line Up with Math	WA	SCI.6-8.4.6-8 PS1A.2	Illustrate the motion of an object using a graph, or infer the motion of an object from a graph of the object's position vs. time or speed vs. time.
Line Up with Math	WA	SCI.6-8.4.6-8 PS1C.2	Given a description of forces on an object, predict the object's motion.
Line Up with Math	WA	SCI.6-8.4.6-8 PS3D.2	Draw and label a diagram showing that for an object to be seen, light must come directly from the object or from an external source reflected from the object, and enter the eye.
Smart Skies			
2009 Science Revised June 2010			
Learning Standards			
Washington Science Revised June 2010			
Grades 9-12			
Activity/Lesson	**State**	**Standards**	
Fly by Math	WA	SCI.9-12.2.9-12 INQB.2	Collect, analyze, and display data using calculators, computers, or other technical devices when available.
Fly by Math	WA	SCI.9-12.2.9-12 INQC.2	Analyze alternative explanations and decide which best fits the data and evidence.
Fly by Math	WA	SCI.9-12.3.9-12 APPD.2	Use computers, probes, and software when available to collect, display, and analyze data.

Fly by Math	WA	SCI.9-12.4.9-11 PS1A.1	Calculate the average velocity of a moving object, given the object's change in position and time (v = (x subscript 2 - x subscript 1)/(t subscript 2 - t subscript 1)).
Fly by Math	WA	SCI.9-12.4.9-11 PS1A.2	Explain how two objects moving at the same speed can have different velocities.
Fly by Math	WA	SCI.9-12.4.9-11 PS1B.2	Explain how an object moving at constant speed can be accelerating.
Fly by Math	WA	SCI.9-12.4.9-11 PS1C.1	Given specific scenarios, compare the motion of an object acted on by balanced forces with the motion of an object acted on by unbalanced forces.
Fly by Math	WA	SCI.9-12.4.9-11 PS1D.1	Predict how objects of different masses will accelerate when subjected to the same force.
Fly by Math	WA	SCI.9-12.4.9-11 PS1D.2	Calculate the acceleration of an object, given the object's mass and the net force on the object, using Newton's Second Law of Motion (F=ma).
Fly by Math	WA	SCI.9-12.4.9-11 PS1E.1	Illustrate with everyday examples that for every action there is an equal and opposite reaction (e.g., a person exerts the same force on the Earth as the Earth exerts on the person).
Line Up with Math	WA	SCI.9-12.4.9-11 PS1A.1	Calculate the average velocity of a moving object, given the object's change in position and time (v = (x subscript 2 - x subscript 1)/(t subscript 2 - t subscript 1)).
Line Up with Math	WA	SCI.9-12.4.9-11 PS1A.2	Explain how two objects moving at the same speed can have different velocities.
Line Up with Math	WA	SCI.9-12.4.9-11 PS1B.2	Explain how an object moving at constant speed can be accelerating.
Line Up with Math	WA	SCI.9-12.4.9-11 PS1C.1	Given specific scenarios, compare the motion of an object acted on by balanced forces with the motion of an object acted on by unbalanced forces.
Line Up with Math	WA	SCI.9-12.4.9-11 PS1F.1	Predict how the gravitational force between two bodies would differ for bodies of different masses or different distances apart.